

```

type struct box{
    int size;  //信箱大小
    int count; //现有信件数
    message letter[]; //信箱中的信件
    semaphore S1, S2; //等信箱和等信件信号量
}

```

```

procedure send(box B, message M){
    int i;
    if(B.count == B.size)
        W(B.s1);
    i = B.count + 1;
    B.letter[i] = M;
    B.count = i;
    R(B.S2);
}

```

```

procedure receive(box B, message X){
    int i;
    if(B.count == 0)
        W(B.s2);
    B.count = B.count - 1;
    X = B.letter[1];
    if(B.count != 0){
        for(int i = 0; i < B.count; i++){
            B.letter[i] = B.letter[i+1];
        }
    }
    R(B.S1);
}

```